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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,109	07/02/2003	Geyi Wen	555255012472	4222

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EXAMINER

CLINGER, JAMES C

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

14.D.

Office Action Summary	Application No.	Applicant(s)	
	10/613,109	WEN ET AL.	
	Examiner	Art Unit	
	Jim Vannucci	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1-5-04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 19 and 21-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Wen et al.(6,329,951)

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claim 19, figures 2-4 disclose a single dielectric substrate(56), a monopole portion(40), and a dipole portion(44) fabricated on the single dielectric substrate in close proximity to the monopole portion and coupled to receive and transmit circuitry as recited(col. 4).

Claim 21, the disclosed antenna is mounted on at least one inside surface of the mobile communication device(fig. 2).

Claim 22, the disclosed device is a dual-band mobile communication device with the monopole portion tuned to a first frequency and the dipole portion tuned to a second frequency(col. 4).

Claim 23, the disclosed mobile communication device is selected from the group consisting of: a Personal Digital Assistant, a cellular telephone, and a wireless two-way email communication device(col. 1).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title; if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 14-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliot(6,335,706) in view of Phillips et al.(4,571,595).

Claim 1, figure 1 of Elliot discloses a monopole portion(18) having a top section, a middle section and a bottom section with a monopole feeding port(60) coupled to circuitry(14) in the mobile device, and a dipole portion(16; and col. 5, lines 8-10) having a feeding port(50) coupled to circuitry(12) in the mobile device where the dipole is coupled to the monopole portion.

While Elliot discloses the two portions being in close proximity, Elliot does not disclose the dipole positioned inside a recess of the middle section of the monopole.

Phillips discloses an antenna(11) with a middle section that has a recess that contains a conductive element(36) to obtain a desired impedance(abstract).

Claims 2 and 20, the antenna portions disclosed in figure 1 of Phillips are fabricated on a single substrate(12).

Claim 3, the substrate(12) disclosed in figure 1 of Phillips is a flexible dielectric substrate.

Claim 4, the mobile communication device disclosed in figure 1 of Phillips is a dual-band(title) mobile communication device and the monopole and dipole portions disclosed in Elliot are tuned to a first and second frequency.

Claim 5, the top section(18) of the antenna(11) disclosed in figure 1 of Phillips includes a meandering line.

Claim 6, the conductor length(18) of the meandering line disclosed in Phillips is pre-selected to tune the antenna(11) to an operating frequency.

Claim 14, the monopole feeding port(60) disclosed in figure 1 of Elliot couples the monopole portion(18) to a receiver(14) in the mobile communication device.

Claim 15, the dipole feeding port(50) disclosed in figure 1 of Elliot couples the dipole portion(16) to a transmitter(12) in the mobile communication device.

Claim 16, the multiple-element antenna disclosed in figure 1 of Phillips is positioned within a housing(16) of the mobile communication device.

Claim 17, the multiple-element antenna(11) disclosed in figure 1 of Phillips is mounted to an inside surface(12) of the mobile communication device.

Claim 18, the flexible dielectric substrate(12) disclosed in figure 1 of Phillips is folded to mount the multiple-element antenna to a plurality of perpendicular inside surfaces of the mobile communication device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the conductor positioning disclosed in Phillips with the antenna disclosed in Elliot to obtain a desired impedance for the antenna as disclosed in Phillips.

5. Claims 7 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliot in view of Phillips and further in view of Matsuoka et al.(6,008,773).

Claim 7, Matsuoka discloses an open folded dipole(figs. 16a).

Claims 9-10, Matsuoka discloses a dipole portion with a top load(fig. 20) that has dimensions pre-selected to tune the dipole portion to an operating frequency.

Claims 11-13, figure 2a of Matsuoka discloses a dipole with first and second conductor sections that define a gap that is pre-selected to set the gain of the dipole portion.

The antenna disclosed in Matsuoka has improved frequency range(abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the dipole disclosed in Matsuoka with the device disclosed in Elliot and Phillips for improved frequency range performance as disclosed in Matsuoka.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No.

6,664,930. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of this application correspond to claims in the patent that have more limitations than the corresponding claims recited in this application.

Claims 1-3, see claims 1-3 of '930; respectively.

Claim 4, see claim 14 of '930.

Claims 5-18, see claims 5-18 of '930; respectively.

Claims 19-20, see claim 1 of '930.

Claim 21, see claim 17 of '930.

Claim 22, see claim 4 of '930.

Correspondence

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Jim Vannucci whose phone number is (571) 272-1820.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center whose telephone number is (703) 308-0956.

Papers related to Technology Center 2800 applications only may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (703) 872-9306.

A handwritten signature in black ink, appearing to read "Jim Vannucci", is positioned above the printed name.

James Vannucci

primary examiner